

SYSTEM, METHOD AND APPARATUS FOR WIRELESS CHANNEL PARAMETER  
ESTIMATION IN SPREAD SPECTRUM COMMUNICATION SYSTEMS

ABSTRACT

The present invention provides a system, method and apparatus for estimating  
5 channel parameters in spread spectrum communication systems. A first method is  
accomplished by receiving a base station signal and then demodulating the base station  
signal. After demodulating the base station signal, a maximum signal is selected from the  
base station signal. If the maximum signal is the common pilot channel, then the channel  
parameters are estimated directly from the common pilot channel. If the maximum signal is  
10 not the common pilot channel, then the demodulated base station signal is iteratively fed  
back for further demodulation and re-selection of the maximum signal until the maximum  
signal is the common pilot channel. A second method is accomplished by incorporating  
channel estimates made from the interfering signals in a constructive manner to the first  
method.

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